



# *COMMONWEALTH of VIRGINIA*

## *DEPARTMENT OF ENVIRONMENTAL QUALITY*

### TIDEWATER REGIONAL OFFICE

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Molly Joseph Ward  
Secretary of Natural Resources

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Director

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Regional Director

## **STATE AIR POLLUTION CONTROL BOARD ENFORCEMENT ACTION - ORDER BY CONSENT ISSUED TO**

**Calpine Mid-Atlantic Generation, LLC**

**FOR**

**The Bayview Energy Center Facility**

**Registration No. 40602**

### **SECTION A: Purpose**

This is a Consent Order issued under the authority of Va. Code §§ 10.1-1309 and -1316, between the State Air Pollution Control Board and Calpine Mid-Atlantic Generation, LLC, regarding the Bayview Energy Center Facility, for the purpose of resolving certain violations of the Virginia Air Pollution Control Law and the applicable permit and regulations.

### **SECTION B: Definitions**

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Board" means the State Air Pollution Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and -1301.
2. "Calpine" means Calpine Mid-Atlantic Generation, LLC, a Delaware limited liability company authorized to do business in Virginia and its members, affiliates, partners, and subsidiaries. Calpine is a "person" within the meaning of Va. Code § 10.1-1300.
3. "CFR" means the Code of Federal Regulations, as incorporated into the Regulations.
4. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.

5. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
6. "Facility" means the Bayview Energy Center facility (formally Conectiv Delmarva Generation, Inc. Bayview Peaking Station), located at 22872 Bayview Circle in Bayview (Northampton County), Virginia.
7. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 10.1-1309.
8. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the Virginia Air Pollution Control Law.
9. "PCE" means partial compliance evaluation.
10. "Permit" means the Title V Federal Operating permit, which was issued under the Virginia Air Pollution Control Law and the Regulations to Calpine under Air Registration No. 40602 on November 21, 2016 and expires on November 20, 2021. The Facility previously was subject to a Title V Federal Operating Permit that was effective July 7, 2011 and expired on September 6, 2016 (but was administratively continued on November 21, 2016).
11. "Regulations" or "Regulations for the Control and Abatement of Air Pollution" mean 9 VAC 5 chapters 10 through 80.
12. "RICE" means reciprocating internal combustion engine.
13. "Subpart ZZZZ" means 40 C.F.R. Part 63, Subpart ZZZZ, to the extent incorporated expressly or by reference into the Regulations and the Permit.
14. "TRO" means DEQ's Tidewater Regional Office located in Virginia Beach, Virginia.
15. "Va. Code" means the Code of Virginia (1950), as amended.
16. "VAC" means the Virginia Administrative Code.
17. "Virginia Air Pollution Control Law" means Chapter 13 (§ 10.1-1300 *et seq.*) of Title 10.1 of the Va. Code.

#### **SECTION C: Findings of Fact and Conclusions of Law**

1. Calpine owns and operates the Facility in Bayview, Virginia. The Facility is the subject of the Permit, which allows the Facility to generate electric power during peak times

using six RICE units. Given their purpose, the RICE units are not activated for power production every day. The RICE units are fueled by No. 2 distillate (diesel) fuel oil.

2. The RICE units are subject to emissions limits and control efficiency requirements for carbon monoxide (CO). Each unit is equipped with an exhaust catalyst that reduces the CO emissions. According to Calpine, new catalysts were installed on all RICE units in 2013, and passed the required performance tests at that time. The Permit requires Calpine to operate the RICE units so that the pressure differentials across the catalyst and catalyst inlet temperature for each RICE unit remain within ranges established in Subpart ZZZZ.
3. On September 22, 2016, Department staff conducted a PCE of Facility records for compliance with the requirements of the Virginia Air Pollution Control Law, the Permit, and the Regulations. Based on the evaluation and follow-up information, Department staff made the following observations:
  - a. The stack test report (Report) for the Permit-required performance stack test conducted on July 12-15, 2016 for RICE Unit No. 2 (BV 20, State ID ST 20, Engine No. 2) listed results of CO emissions at 34.4, 33.6, and 30.7 ppmvd @ 15% O<sub>2</sub> (average of minimum 3 runs, 100 minutes each, required by EPA Method 10 for CO). The Permit limit is 23 ppmvd at 15% O<sub>2</sub>. By letter dated July 25, 2016, Calpine maintains that it shut down Engine No. 2 and did not continue to operate it. According to Calpine, the cause of the excess CO emissions for Engine No. 2 was an apparent large amount of build-up within the six catalyst elements caused by and/or causing flaking of a critical catalyst element coating. Calpine believed that immediately replacing the catalyst elements had been successful in restoring sufficient control of CO emissions, and further demonstrated that the July 12, 2016 performance test failure had been caused by the removed and replaced catalyst elements. A re-stack test on Engine No. 2 was conducted on July 19, 2016 and indicated passing CO results of 5.8, 5.9, and 5.8 ppmvd @ 15% O<sub>2</sub>.
  - b. Calpine failed to provide DEQ with the final performance test report until September 22, 2016, which was 65 days after the July 19, 2016 re-stack test date. The Permit requires that Calpine submit to DEQ a Notification of Compliance Status, including the performance test results, before close of business on the 60th day following completion of the performance test. Calpine provided written notification to DEQ by letter dated July 25, 2016 of the performance test CO limit exceedance.
  - c. By letter dated July 25, 2016, Calpine notified DEQ that Engine No. 2 had exceeded the emission limit for CO during the performance test conducted on July 12, 2016. According to Calpine, because of the failed stack test, Calpine removed and inspected the six catalyst elements for Engine No. 2 and observed a large amount of buildup on all of the elements. Calpine believes that this buildup is a contributing factor to the elements becoming ineffective. The Permit requires that Calpine operate and maintain its control equipment in a manner consistent with good air pollution control practices.

- d. Calpine also indicated in the July 25, 2016 letter that it had conducted a re-stack test for Engine No. 2 on July 19, 2016. A review of DEQ files did not find a Notification of Intent to conduct a performance test prior to this date.
4. Condition III.A.6(a) of the 2011 Permit, and 40 CFR §§ 63.6603 and 63.6640, Table 2d.3.a, limits the CO concentration in exhaust from an existing stationary RICE unit to 23 ppmvd or less at 15% O<sub>2</sub>.
5. Condition III.A.8 of the 2011 Permit provides that Calpine shall comply with applicable General Compliance requirements in 40 CFR § 63.6605 for the six RICE units (BV10-BV60).
6. Condition III.F.4 of the 2011 Permit requires that Calpine submit a Notification of Intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in 40 CFR 63.7(b)(1).
7. Condition III.F.5(b) of the 2011 Permit requires that Calpine submit a Notification of Compliance Status, including performance test results, before the close of business on the 60th day following completion of the performance test.
8. 9 VAC 5-170-160 (A) states that the Board may impose conditions upon permits and other approvals which may be necessary to carry out the policy of the Virginia Air Pollution Control Law, and which are consistent with the regulations of the Board.
9. Va. Code § 10.1-1322(A) provides that permits may be issued, amended, revoked, or terminated and reissued by the Department and may be enforced under the provisions of this chapter in the same manner as regulations and orders.
10. On January 11, 2017, based on the PCE and follow-up information, the Department issued Notice of Violation No. ATRO000568 to Calpine for the violations described in paragraphs C(3) through C(8), above.
11. On January 19, 2017, Department staff had a telephone conversation with representatives of Calpine to discuss the violations in NOV No. ATRO000568. Calpine stated that Engine No. 2's failed stack test may be attributed to a bad catalyst that failed prematurely and without warning based on previous engine activation, exercise and maintenance history. Calpine maintained that the catalyst on Engine No. 2 was only three years old at that time and ineffective, which indicates that the catalyst may have failed prematurely.
12. Based on the results of the September 22, 2016 PCE, the January 19, 2017 telephone conversation, and the documentation submitted on July 25, 2016, the Board concludes that Calpine has violated Conditions III.A.6(a), III.A.8, III.F.4, and III.F.5(b) of the 2011 Permit, 9 VAC 5-170-160 (A), and Va. Code § 10.1-1322(A), as described in paragraphs C(2) through C(8), above. Calpine has submitted documentation that verifies that the violations described in paragraphs C(3) and C(8), above, have been corrected.

#### **SECTION D: Agreement and Order**

Accordingly, by virtue of the authority granted it in Va. Code §§ 10.1-1309 and -1316, the Board orders Calpine, and Calpine agrees to pay a civil charge of \$21,839 within 30 days of the effective date of the Order in settlement of the violations cited in this Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control  
Department of Environmental Quality  
Post Office Box 1104  
Richmond, Virginia 23218

Calpine shall include its Federal Employer Identification Number (FEIN) \_\_\_\_\_ with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF). If the Department has to refer collection of moneys due under this Order to the Department of Law, Calpine shall be liable for attorneys' fees of 30% of the amount outstanding.

#### **SECTION E: Administrative Provisions**

1. The Board may modify, rewrite, or amend this Order with the consent of Calpine for good cause shown by Calpine, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order and in NOV No. ATRO000568, dated January 11, 2017. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, Calpine admits the jurisdictional allegations contained herein, and does not admit but agrees not to contest the findings of fact, and conclusions of law contained herein.
4. Calpine consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. Calpine declares it has received fair and due process under the Administrative Process Act and the Virginia Air Pollution Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be

construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.

6. Failure by Calpine to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. Calpine shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. Calpine shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Calpine shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
  - a. the reasons for the delay or noncompliance;
  - b. the projected duration of any such delay or noncompliance;
  - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
  - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and Calpine. Nevertheless, Calpine agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until:

- a. The Director or his designee terminates the Order after Calpine has completed all of the requirements of the Order;
- b. Calpine petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
- c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to Calpine.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Calpine from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

- 12. Any plans, reports, schedules or specifications attached hereto or submitted by Calpine and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
- 13. The undersigned representative of Calpine certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind Calpine to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Calpine.
- 14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
- 15. By its signature below, Calpine voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 24<sup>th</sup> day of April, 2017.

  
Craig Nicol, Regional Director  
Department of Environmental Quality

Calpine Mid-Atlantic Generation, LLC voluntarily agrees to the issuance of this Order.

Date: 4/20/17 By: William Ferguson (Person) Vice-President (Title)  
Calpine Mid-Atlantic Generation, LLC

State of Delaware  
City/County of New Castle

The foregoing document was signed and acknowledged before me this 20<sup>th</sup> day of April, 2017, by William Ferguson who is Vice President of Calpine Mid-Atlantic Generation, LLC, on behalf of the limited liability company.

  
Notary Public

Registration No. \_\_\_\_\_

My commission expires: October 19, 2018

Notary seal:

